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10/717,830	11/20/2003	David G. Conroy	MS307116.01/MSFTP2299US	8567
27195	7590	04/29/2009	EXAMINER	
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			ART UNIT	PAPER NUMBER
			2194	
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			04/29/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/717,830	<b>Applicant(s)</b> CONROY ET AL.	
	<b>Examiner</b> LI B. ZHEN	<b>Art Unit</b> 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1 – 26 are pending in the application.
2. In view of the Appeal Brief filed on 01/22/2009, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

### ***Response to Arguments***

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 16 – 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The method of processing input/output events is drawn to a method that can be performed by a human only. Claim 16 does not recite any limitations that require the method to be tied to a particular machine and the method of claim 16 does not change materials to a different state or thing. The steps of requesting a service, receiving a customizable tag-based message and request the service to remove the input/output event do not inherently require execution by a machine. In light of *In re Bilski*, 545 F.3d 943, 88 USPQ2d 1385 (Fed. Cir. 2008), the method of claim 16 is directed at an unpatentable abstract idea, and not a patentable process, because the method of claim 16 is neither tied to a particular machine nor operated to change materials to a different state or thing. Therefore, claims 16 – 20 are non statutory.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1 – 6 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by US 20020029256 to Zintel et al. [hereinafter Zintel].**

8. As to claim 1, Zintel teaches a device in a networked system [paragraph 0042] that is a computer subsystem [paragraph 0071], comprising:

one or more services executing in the device [paragraph 0078], each service including a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080] and a unilateral contract [paragraphs 0213, 0214, 0261, 0266 – 0269, 0524] for describing one or more behaviors of the service [Contracts describe the public behavior of UPnP devices; paragraph 0557] wherein the one or more behaviors are described by behavior sentences [paragraphs 0558 – 0563; paragraph 0213: “Contract defines network data packets 413, request/response patterns, and protocol”], wherein the unilateral contract specifies an order of messages that flow in or out of services [wire protocol (the content and sequence of network messages); paragraphs 0261 and 0267], wherein the unilateral contract is accepted when an external service promises to perform the unilateral contract according to the order of messages specified in the unilateral contract [discovery process returns only the basic information needed to connect to the embedded computing device; paragraphs 0524, 0528] or when the external service performs the unilateral contract according to the order of messages specified in the unilateral contract [Rehydrator 410 converts calls of an application program 416 to the IClock interface 414 into the network data messages specified in the Contract to invoke the corresponding commands of the Clock Service; paragraph 0214], and wherein acceptance of the unilateral contract creates an instance of communication between services [paragraphs 0117, 0214, 0524, 0528].

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9. As to claim 2, Zintel teaches wherein the one or more services comprise an information service, the information service being capable of producing a customizable, tag-based document for describing the capabilities of the device [paragraphs 0086 and 0149].

10. As to claim 3, Zintel teaches wherein the one or more services comprise a data service, the data service being capable of storing input/output events generated by the device and further being capable of responding to queries regarding the input/output events [paragraphs 0213, 0220, 0293].

11. As to claim 4, Zintel teaches a network device driver that enables communication between services [paragraphs 0515 and 0549].

12. As to claim 5, Zintel teaches a decentralized operating system on which the one or more services are executed [paragraphs 0128 and 0135].

13. As to claim 6, Zintel teaches in a networked computer system [paragraph 0042], a terminal service [paragraph 0062], comprising:

a display service [digital television, devices that support local user interface; paragraphs 0061, 0062 and 0078] with a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080] and a unilateral contract [paragraphs 0213, 0214, 0261, 0266 – 0269, 0524] for describing one or more behaviors of the display

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service [Contracts describe the public behavior of UPnP devices; paragraph 0557], wherein the one or more behaviors associated with a service are described by behavior sentences [paragraphs 0558 – 0563; paragraph 0213: “Contract defines network data packets 413, request/response patterns, and protocol”], wherein the unilateral contract is accepted when an other service promises to perform the unilateral contract in accordance with the one or more behaviors [paragraphs 0524, 0528] or when the other service performs the unilateral contract in accordance with the one or more behaviors [paragraph 0214], and wherein acceptance of the unilateral contract creates an instance of communication between the display service and another service [paragraphs 0117, 0214, 0524, 0528].

14. As to claim 26, Zintel teaches in a networked system [paragraph 0042], a device that is a computer subsystem [paragraph 0071], comprising:

one or more services executing in the device [paragraph 0078], each service including a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080], and a unilateral contract [paragraphs 0213, 0214, 0261, 0266 – 0269, 0524] for describing one or more behaviors of the service [Contracts describe the public behavior of UPnP devices; paragraph 0557], wherein the port associated with the service comprises behavioral types [Contract is a specification of the wire protocol; paragraph 0267], and wherein the device communicates with another device of the networked system based on compatibility of behavioral types [Contract defines network data packets, request/response patterns, and protocol via which the packets are

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exchanged; paragraph 0213], the device being capable of coupling to the networked system to exchange customizable, tag-based messages [paragraph 0276].

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zintel in view U.S. Patent No. 6,643,650 to Slaughter et al. [hereinafter Slaughter, previously cited].**

17. As to claim 16, Zintel teaches a computer-implemented method for processing input/output events by devices as services [an Event Subscription Server and an Event Source; paragraph 0062], the method comprising:

requesting a service representing a device for an input/output event [Clients send out a User Datagram Protocol (UDP) multicast packet containing the identifier of the desired service; paragraphs 0524, 0087 and 0106], the service including a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080] and a unilateral contract for describing one or more behaviors of the service [paragraphs 0213, 0214, 0261, 0266 – 0269, 0524], the unilateral contract expressed in



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a language specifying an order of messages that flow in or out of services [wire protocol (the content and sequence of network messages); paragraphs 0261 and 0267];

receiving a customizable, tag-based message that contains the input/output event [paragraph 0276]. Zintel does not specifically disclose requesting the service to remove the input/output event.

However, Slaughter teaches requesting the service to remove the input/output event [col. 32, lines 10 – 32 of Slaughter].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Zintel to incorporate the features of Slaughter. One of ordinary skill in the art would have been motivated to make the combination because this removes processed events from storage and reduces the memory requirements of the system.

18. As to claim 21, see the rejection to claim 16 above. In addition, Zintel teaches the one or more behaviors are described by behavior sentences [paragraphs 0558 – 0563; paragraph 0213: “Contract defines network data packets 413, request/response patterns, and protocol”], wherein the unilateral contract is accepted when an external service promises to perform the unilateral contract according to the order of messages specified in the unilateral contract [paragraphs 0524, 0528] or when the external service performs the unilateral contract according to the order of messages specified in the unilateral contract [Rehydrator 410 converts calls of an application program 416 to the IClock interface 414 into the network data messages specified in the Contract to invoke

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the corresponding commands of the Clock Service; paragraph 0214], and wherein acceptance of the unilateral contract creates an instance of communication between services [paragraphs 0117, 0214, 0524, 0528].

**19. Claims 7 – 12 and 14 are rejected under 35 U.S.C. 103(a) as Zintel in view of U.S. Application Publication No. 20030101294 to Saint-Hilaire et al. [hereinafter Saint].**

20. As to claim 7, Zintel teaches one or more services executing in the device [paragraph 0078], each service including a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080] and a unilateral contract [paragraphs 0213, 0214, 0261, 0266 – 0269, 0524] for describing one or more behaviors of the service [paragraph 0557]. Zintel does not specifically disclose a cursor shape service.

However, Saint teaches a display service includes a cursor shape service for describing the shape on an on-screen cursor [paragraph 0144 – 0146 of Saint].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the system of Zintel to include the features of Saint. One of ordinary skill in the art would have been motivated to make the combination because this provides a mechanism that enables interaction between a low-cost networked device and an "extended" personal computer, wherein a majority of the software and hardware components used to enable the interaction are provided by

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the extended PC, and the remote device requires limited hardware that supports "lightweight" software service components [paragraph 0023 of Saint].

21. As to claim 8, Zintel as modified teaches the display service includes a cursor position service for describing the position of an on-screen cursor [paragraph 0144 – 0146 of Saint], the cursor position service including a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080 of Zintel] and a unilateral contract for describing one or more behaviors of the cursor position service [paragraph 0557 of Zintel].

22. As to claim 9, Zintel as modified teaches wherein the display service includes a window service for describing a window [paragraphs 0113, 0114 and 0119 of Saint], the window service including a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080 of Zintel] and a unilateral contract for describing one or more behaviors of the window service [paragraph 0557 of Zintel].

23. As to claim 10, Zintel as modified teaches wherein the display service includes a window list service [paragraphs 0113, 0114 and 0119 of Saint] for containing a list of window services appearing on a display, the window list service including a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080 of Zintel] and a unilateral contract for describing one or more behaviors of the window list service [paragraph 0557 of Zintel].

24. As to claim 11, Zintel as modified teaches wherein the display service includes a window update service for refreshing a window represented by a window service [paragraphs 0113, 0114 and 0119 of Saint], the window update service including a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080 of Zintel] and a unilateral contract for describing one or more behaviors of the window update service [paragraph 0557 of Zintel].

25. As to claim 12, Zintel teaches a keyboard service [paragraphs 0144 – 0146 of Saint] with a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080 of Zintel] and a unilateral contract for describing one or more behaviors of the keyboard service [paragraph 0557 of Zintel].

26. As to claim 14, Zintel teaches a mouse service [paragraphs 0144 – 0146 of Saint], the mouse service including a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080 of Zintel] and a unilateral contract for describing one or more behaviors of the mouse service [paragraph 0557 of Zintel].

27. **Claims 17 – 20 and 22 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zintel and Slaughter further in view of Saint.**

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28. As to claim 17, Zintel as modified teaches requesting the service for creating a window, the act of creating a window creating a window service [paragraphs 0113, 0114 and 0119 of Saint] with a port identifiable by an identifier that includes a uniform resource identifier [paragraph 0080 of Zintel] and a unilateral contract for describing one or more behaviors of the window service [paragraph 0557 of Zintel]. As to the motivation for combining Zintel and Slaughter with Saint see the rejection to claim 7 above.

29. As to claim 18, Zintel as modified teaches comprising requesting the service for refreshing the window, the act of requesting invoking a window update service that repaints the window [paragraphs 0113, 0114 and 0119 of Saint].

30. As to claim 19, Zintel as modified teaches requesting the service to change a cursor shape, the act of requesting invoking a cursor shape service that changes the shape of the cursor [paragraph 0155 of Saint].

31. As to claim 20, Zintel as modified teaches requesting the service to change a position of a cursor, the act of requesting invoking a cursor position service that changes the position of the cursor [paragraphs 0145 – 0146 of Saint].

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32. As to claims 22 – 25, these are product claims that correspond to method claims 17 – 20; see the rejections to claims 17 – 20 above which also meet these product claims.

**33. Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zintel and Saint further in view of Slaughter.**

34. As to claim 13, Zintel teaches wherein the keyboard service includes a data service for containing keyboard events generated by a keyboard [paragraphs 0144 – 0146 of Saint], the data service being capable of responding to queries to remove keyboard events for processing [col. 32, lines 10 – 32 of Slaughter]. As to the motivation for combining Zintel and Saint with Slaughter see the rejection to claim 16 above.

35. As to claim 15, Zintel teaches wherein the mouse service includes a data service for containing mouse events generated by a mouse [paragraphs 0144 – 0146 of Saint], the data service being capable of responding to queries to remove mouse events for processing [col. 32, lines 10 – 32 of Slaughter].

#### **CONTACT INFORMATION**

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36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768.

The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Li B. Zhen/  
Primary Examiner, Art Unit 2194

Li B. Zhen  
Primary Examiner  
Art Unit 2194